

VIMENTI · PLATFORM FOR SOCIAL IMPACT

Navegador Familiar

A family in crisis should not need a caseworker to navigate the caseworker system. And five years of listening well should make the services better.

The screenshot displays the 'Navegador Familiar' web application interface. The top navigation bar shows 'Navegador Familiar · Resumen de Evaluación'. The left sidebar contains the 'vimenti' logo and a menu with options: Familias, Trabajadores, Tablero, Mi agenda, Administración, Auditoría, and Manual. The main content area is titled 'RESUMEN Y VULNERABILIDADES · ETAPA 2' and features a user profile for 'PÉREZ NIEVES' with a 'MODERADO' status and 'Caso SEED-1025'. Below this, the 'ETAPA 2 · RESUMEN Y VULNERABILIDADES' section shows a 'RESUMEN DE EVALUACIÓN' with a 'NIVEL CALCULADO' of 'MODERADO'. A detailed description states: 'Determinístico y auditable — el LLM nunca fija el nivel'. Further details include: 'Nivel calculado: MODERADO. Cumple 10 de 14 indicadores evaluados. El ingreso no está bajo el nivel de pobreza federal. Empleo: empleo parcial o temporero.' and two tags: 'Sobre nivel de pobreza' and 'Cumple 10 de 14 indicadores'. A green alert box indicates 'RIESGO DE PRECIPICIO DE BENEFICIOS · SIN RIESGO DE PRECIPICIO' with a margin of safety and a recommended action of 'educación y planificación'. The bottom section, 'INDICADORES (1-4) Y POR QUÉ', lists various indicators with scores: 'Transportación' (3), 'Seguridad alimentaria' (2), 'Cuidado de los niños' (2), 'Educación de los niños' (4), 'Educación de adultos' (4), 'Cobertura de salud' (3), 'Salud física' (4), and 'Salud mental' (4). Each indicator includes a brief description of the condition.

+20%

SERVICE OFFERINGS,
MATCHED TO NEEDS THE
DATA REVEALED
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16

AUDITABLE INDICATORS
SCORED PER FAMILY

5 yrs

OF ASSESSMENTS, NOW ONE
READABLE DATASET

PRODUCTS

SOCIAL
SERVICES

AI

// 01

The context

Vimenti runs the first integrated family services center in Puerto Rico, a two generation model where education, health and economic mobility sit under one roof. A family's path crosses all three. For years that path lived in individual navigators' heads, in spreadsheets and in stacks of paper, and five years of assessments held real signal about what families needed that nobody could read across. The facts a household hands over in an intake interview are income, housing, health and family circumstance, and every copy carried them further from anyone's control.

// 02

The challenge

Intake happens in community settings on unreliable connectivity, families come back months later expecting continuity, and the level a family is assigned moves real resources, so it cannot be a black box. That set the terms before any interface existed: sensitive answers captured away from the office, a score a supervisor can audit line by line, a worker who sees the families they carry and nothing else, and a way to learn from years of intake without reading anyone's file.

// 03

How we worked

We designed with the navigators rather than only for them, and we settled the data model and the access rules before drawing the screens. Caseloads are private and enforced on the server, not hidden in the interface. The instrument splits in two, so a family answers the ordinary questions on its own phone through a single-use link while the delicate ones stay inside the in-person conversation. Scoring is deterministic and explained value by value. Generative AI drafts narrative over tokenized placeholders, so personal data never reaches the model. Reporting is aggregate by construction. What is left is a small number of doors, all of them logged, on a deployment we watch.

CLIENT

Vimenti · Platform for Social Impact

SECTOR

Social services

YEAR

2026

STATUS

Functional, working prototype: a proposal for solving and automating this process, built for Vimenti to validate. Not an approved platform in production use.

BUILT WITH

React and TypeScript, serverless API layer, managed Postgres with versioned migrations, role-based private caseloads, granular audit logging, on-screen consent signatures, deterministic benefit calculation, PII tokenization before generative-AI summaries, encrypted offline field capture with background sync, aggregate-only reporting

A family in crisis should not need a caseworker to navigate the caseworker system. And five years of listening well should make the services better.

// 04

What we built

01 Private caseloads, enforced at the server

A social worker sees only the families they carry. Managers and administrators see the program. The restriction lives in the server, so the screen is not the thing holding it shut.

03 Deterministic scoring, auditable line by line

Sixteen indicators scored one to four on a fixed rubric, with the level computed as answers arrive and every value explained beside it. The assistant drafts language; it never sets the level.

05 Benefit estimate and cliff risk, in the form

The summary estimates what each participant should be receiving and flags how close the household sits to its next benefit threshold, using the same verified rules engine behind the public Calculadora de Beneficios.

07 Reporting with no path to a person

The board shows counts and percentages, filterable by grant. It holds no view of a single household, so there is no record in it to open.

09 An audit record of access, not only of edits

Every access and every change is written to the log, failed sign-ins included, so the question of who read what has an answer.

02 The instrument splits in two

Families answer the non-confidential questions on their own phone through a single-use prefilled link. The delicate questions never leave the navigator's in-person conversation.

04 Goals suggested from the gaps

The same deterministic read that sets the level identifies each family's gaps and needs, and suggests goals from the catalog that answer them. The navigator assigns, adapts or declines each one case by case; the suggestions stay updatable, never automatic.

06 Tokenized before the model reads it

Every piece of personal data becomes a placeholder before a summary is drafted. Generative AI writes over the placeholders. What it does not write stays deterministic.

08 Field capture, encrypted and revocable

A separate installable app fills evaluations and logs contacts with no signal, encrypted at rest behind a field PIN, syncing without duplicates and wipeable remotely.

UNDER THE HOOD React and TypeScript, serverless API layer, managed Postgres with versioned migrations, role-based private caseloads, granular audit logging, on-screen consent signatures, deterministic benefit calculation, PII tokenization before generative-AI summaries, encrypted offline field capture with background sync, aggregate-only reporting

// 05

How a case moves without spreading

01

Invite, or capture in the field

A caseworker sends a QR code or an email so the family answers the questions only it can answer. The navigator completes the rest in the field, offline if needed, resuming wherever anyone left off.

02

Score on a fixed rubric

Sixteen indicators, one to four each, computed live and shown value by value, so a supervisor can audit exactly why a family landed where it did.

03

Summarize over placeholders

Personal data is tokenized before any summary is requested. The model writes narrative over the placeholders and never sees the household behind them.

04

Plan and route to services

The assessment becomes a family roadmap and a referral pathway drawn from the goal catalog, with a follow-up cadence set by the level and adjustable without losing history.

05

Recalculate as life moves

Follow-up interventions and touchpoints are part of every plan, and any change in the family's conditions is registered there and rescored on the spot: a new job, or the loss of one. The level tracks the household as it lives, not as it last interviewed.

06

Read the population, not the person

Because every family answers the same instrument, an analysis layer reads across years of intake in aggregate, showing where need concentrates and where the catalog falls short. Years of back assessments were read exactly this way, and the goals that analysis surfaced were added to the catalog, so plans can cover the vulnerabilities intake actually reveals.

UNDER
THE
HOOD

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// 06

Private by construction

FIG. 1 · IA DES-IDENTIFICADA

El modelo escribe sobre **marcadores**; los nombres nunca salen del servidor

La nota de repaso de caso que la IA redacta para el trabajador social. Los identificadores viajan como marcadores estables; el servidor los sustituye de vuelta cuando el modelo ya respondió.

LO QUE VE EL MODELO

La familia **[FAMILIA]** de **[MUNICIPIO]** permanece en nivel Vulnerable: cumple 9 de 16 indicadores, con ingreso bajo el nivel de pobreza y empleo parcial. **[ENTREVISTADO]**, madre y entrevistada del ciclo de inicio de año, reporta atrasos en vivienda y en el cuidado de menores.

El plan tiene 4 metas activas; la meta de empleo avanza y hay 2 seguimientos vencidos en la ruta. Priorizar la recertificación del PAN antes del próximo contacto.

Solo categorías, puntuaciones y marcadores llegan al modelo.



LO QUE LEE EL TRABAJADOR

La familia **Santiago Rivera** de **Caguas** permanece en nivel Vulnerable: cumple 9 de 16 indicadores, con ingreso bajo el nivel de pobreza y empleo parcial. **Carmen**, madre y entrevistada del ciclo de inicio de año, reporta atrasos en vivienda y en el cuidado de menores.

El plan tiene 4 metas activas; la meta de empleo avanza y hay 2 seguimientos vencidos en la ruta. Priorizar la recertificación del PAN antes del próximo contacto.

La sustitución ocurre localmente; el modelo nunca conoce a la familia.

NOTA RECREADA CON DATOS SINTÉTICOS. LA IA NUNCA ASIGNA EL NIVEL NI LA CADENCIA; SI NO ESTÁ DISPONIBLE, UN RESUMEN DETERMINÍSTICO TOMA SU LUGAR.

FIG. 2 · EL CIRCUITO DE TOKENIZACIÓN

Ida y vuelta sin exponer PII

01

DETECTAR

Apellido, entrevistado y municipio se extraen del expediente antes de armar el contexto analítico.

02

TOKENIZAR

Cada identificador se reemplaza por su marcador estable: [FAMILIA], [ENTREVISTADO], [MUNICIPIO].

03

REDACTAR

La IA generativa escribe la nota de dos párrafos usando los marcadores tal cual, bajo un esquema estricto de salida.

04

RE-IDENTIFICAR

El servidor sustituye los marcadores por los valores reales; ese paso nunca pasa por el modelo.

05

CONFIRMAR

El trabajador revisa la nota junto a los flags calculados de forma determinística; nada se guarda sin su confirmación.

FIG. 3 · LA FRONTERA DE LA IA

Lo que la IA **nunca decide**

01

EL NIVEL

Se calcula de los dieciséis indicadores con reglas fijas cubiertas por pruebas unitarias, y se explica línea por línea.

02

LA CADENCIA

La frecuencia de seguimiento sale del nivel, de semanal a semestral, por fórmula, no por criterio del modelo.

03

LOS BENEFICIOS

Los montos sugeridos y el riesgo de precipicio se calculan de forma determinística dentro del propio formulario.

04

LA PROSA, SOLAMENTE

La IA redacta narrativa y fraseo de sugerencias. Si falla o tarda, un texto determinístico responde en su lugar: la pantalla nunca depende del modelo.

// 07

Inside the Navigator

The staff instrument: seventy-nine questions in guided sections, with live progress, repeating groups per student and the level computed as answers arrive. Synthetic sample data shown.

Family self-service: a caseworker shares a QR or link so the family answers what only they can. The delicate questions stay for the navigator, in person. Synthetic sample data shown.

Suggested goals, drawn from the vulnerabilities the assessment detected: the worker accepts, edits or discards each one, and nothing enters the plan without confirmation. Synthetic sample data shown.

The service catalog: an editable inventory of goals and suggestion criteria, the layer that grew as the data revealed new needs.

// 08

What five years of listening produced

+20%

MORE SERVICE OFFERINGS FOR A VULNERABLE POPULATION

79

QUESTIONS, MANY SELF-ANSWERED BEFORE THE VISIT

Auto

BENEFIT AMOUNT CALCULATED AND SUGGESTED IN-FORM

3

ROLES; EACH WORKER SEES ONLY THEIR OWN CASELOAD

100%

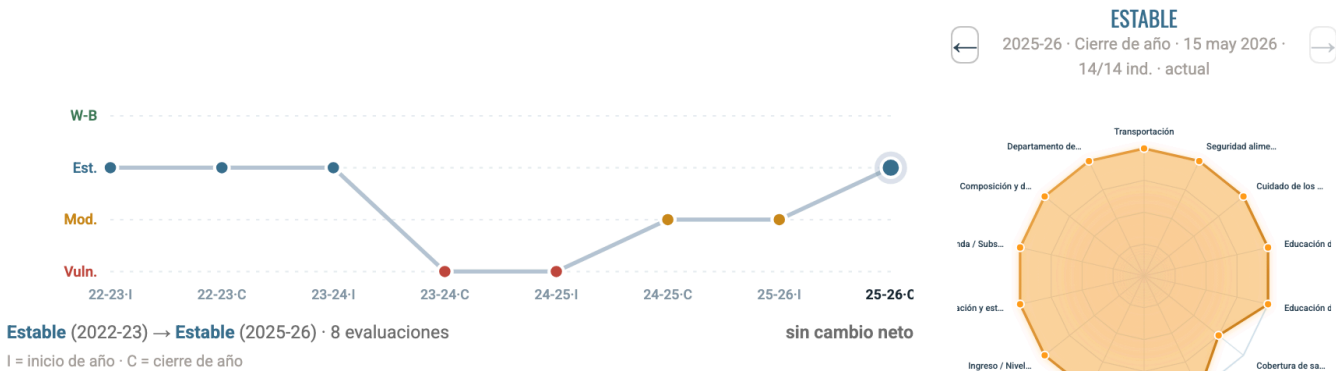
OF ACCESS AND CHANGES ON THE AUDIT RECORD

0

PERSONAL DATA IN REPORTS OR AI, AGGREGATED AND DE-IDENTIFIED

TRAYECTORIA MULTIANUAL

Cómo ha evolucionado la familia entre evaluaciones — nivel por año y Yayael de cada ciclo



A FAMILY'S MULTI-YEAR TRAJECTORY: LEVEL ACROSS EVALUATIONS, WITH THE FULL INDICATOR RADAR PER CYCLE. SYNTHETIC SAMPLE DATA.

// 09

What this demonstrates

- Human-centered product design for high-stakes daily work
- Data that improves the service, not just the record
- Privacy by construction: server-enforced caseloads, audit trail, de-identified AI

+20%

SERVICE OFFERINGS, MATCHED TO NEEDS THE DATA REVEALED

16

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5 yrs

OF ASSESSMENTS, NOW ONE READABLE DATASET

A well-built intake does more than record a family. Read across enough of them, and it tells an organization who it is not yet serving.

ABOUT MUTINY LABS

Mutiny Labs is an innovation and strategy studio in Puerto Rico. We build digital infrastructure for organizations that move the island forward, designed with the people who use it and built to be run by the teams that own it.

Products & Platforms

Web applications, portals and operations software shaped around real workflows.

Applied AI

Generative and analytical AI placed deliberately, private by construction.

3D & Immersive

Virtual museums, gaussian-splat capture and experiences that carry culture.

Data & Measurement

Impact platforms, dashboards and reporting that funders can trust.

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